



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/566,732

03/14/2006

Akihiko Nishio

L9289.06112

9737

52989

7590

09/29/2009

Dickinson Wright PLLC

James E. Ledbetter, Esq.

International Square

1875 Eye Street, N.W., Suite 1200

Washington, DC 20006

EXAMINER

CASCA, FRED A

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

09/29/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,732	Applicant(s) NISHIO ET AL.	
	Examiner FRED A. CASCA	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12, 14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2617

DETAILED ACTION

1. This action is in response to applicant's amendment filed on June 17, 2009. Claims 12 and 14-15 are still pending of which claim 12 is withdrawn in the present application. **This Action is made FINAL.**

IDS

2. The IDS document filed on June 24, 2009, specifically the documents JP-169036 (06/2003) is not in English. Thus, it has been placed in the application file and considered only to the best of examiner's abilities provided by the drawings.

Priority

3. The Examiner has acknowledged the Applicant's claim for foreign priority under 35 U.S.C. § 119, however, a certified and perfected copy of the priority document, Japanese Application No. 2003-288162, 08/06/2003 NO, has not been submitted to the USPTO. It is respectfully requested that a certified and perfected copy of the priority document be submitted in order to overcome references Baum et al (US 2005/0286547 A1), Sung et al (US 2005/0105589 A1) and Mukai (US 2005/0232135 A1). References Baum, Sung and Mukai disclose the main concepts of applicant's claimed invention and can be used as a potential reference in the rejection of applicant's claimed invention.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 2617

Claim 14 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Newly added claims 14 and 15 contain new matter. The phrase “a transmission section that transmits a number of CQIs matching the number of subcarriers subject to the CQI reporting” has not been described in the specification.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over LI et al (US 2002/0119781 A1) in view of Hwang et al (US 2005/0025039 A1).

Referring to claim 14, Li discloses a wireless communication apparatus (abstract, Par. 39, "subscribers") comprising:

a receiving section that receives information related to a number of subcarriers from a base station (Par. 37 and Par. 39, line 1-2 and lines 8-10, “each base station periodically broadcasts pilot OFDM symbols to every subscriber”, Par. 41, lines 1-3, "each subscriber

Art Unit: 2617

measures the SINR of each subcarrier”, note that the “SINR” is the related information to subcarriers);

an extracting section that extracts a number of subcarriers subject to channel quality indicator (CQI) reporting from the received information (Par. 24, lines 3-5, “selects multiple subcarriers with good performance”, note that SINR provides CQI),

a transmission section that transmits CQIs and subcarriers (Par. 24, lines 5-9, “feedback the information on these candidate subcarriers to the base station”, note that SINR is the same as CQI).

Li is silent on whether or not the transmission section transmits a number of CQIs matching the number of subcarriers subject to the CQI reporting, as claimed.

Hwang discloses a transmission section that transmits a number of CQIs matching the number of subcarriers subject to the CQI reporting (Par. 30, particularly lines 7-14, note that a mobile station (MSS) determines CINR (CQIs) of each subcarrier and then feedbacks the CINRs of the corresponding subcarriers based on the CQIs).

It would have been obvious to a person of ordinary skill in the art at the time of invention to modify the invention of Li in the format claimed by incorporating the teachings of Hwang, for the purpose of providing feedback for every individual subcarrier and thereby implementing the appropriate modulation schemes for every individual subcarrier, and thus, providing efficient communication subcarriers.

Art Unit: 2617

7. Claim 15 recites features analogous to the features of claim 14. Thus, it is rejected for the same arguments as set forth in the rejection of claim 14 (see the rejection of claim 14 above).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper, can be reached at (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617

/Fred A. Casca/

Examiner, Art Unit 2617